BASIS DEFINITION

Here's a definition: "It is the difference between the cash price and a futures market price at the time and place where delivery is to take place" – (Carl German – University of Delaware – Basis – The economics of where and when).

Other basic thoughts concerning basis:

To effectively use the basis, you should have access to and be familiar with historical records and trends.

Stronger – cash price moves up relative to futures

Weaker – cash price moves down relative to futures

"Understanding the Impact of Basis on Pricing Strategies"

OUTLINE

- **Basic concepts**
  - **General thoughts**
    - **Commercial hedging**
  - **History**
    - **Previous to 1970's**
    - **1970's and 1980's - Politics and Surpluses**
    - **2000's - China and Ethanol**
  - **Ideas and Trends**
    - **China – world demand and production changes**
    - **Ethanol – EPA RFS program demand**
    - **Futures delivery system – convergence of cash and futures**
- **Factors that affect basis change**
  - **Seasonality**
  - **Futures Spreads**
  - **Return on Storage**
  - **Transportation**
- **Futures vs. Basis**
  - **Ending stocks vs. Velocity**
- **Recognizing changes**
- **Marketing Strategies**
- **Conclusion**

Transaction Chart

	CASH	**DIFFERENCE**	**FUTURES**
Date		Basis	
October 1	**Purchase**		**Sale**
	5,000 bushels @ $4.00	**-.50**	**5,000 bushels - Dec futures @ $4.50**
October 15	**Sale**		**Purchase**
	5,000 bushels @ 4.10	**-.50**	**5,000 bushels – Dec futures @ $4.60**
Net Change	**+ .10**	**.00**	**-.10**

HEDGE - The offset of a cash position with an equal and opposite position in the futures market.

CORN HISTORY

	1960	1970	1980	1990	2000	2010
Annual Maize Production, U.S.	**3908**	**4152**	**6639**	**7934**	**9915**	**12447**
Annual Maize Production world	**8072**	**10465**	**15614**	**19030**	**23073**	**33631**
Exports	**277**	**488**	**2355**	**1791**	**1935**	**1830**
Government Ownership	**0**	**72**	**423**	**638**	**8**	**0**
Livestock use	**3109**	**3317**	**4783**	**4652**	**5838**	**4799**
Corn used for Ethanol	**-**	**-**	**-**	**-**	**630**	**5019**
Total Use	**3679**	**4205**	**7280**	**7757**	**9740**	**13055**
Ending Stocks	**2016**	**952**	**1391**	**1521**	**1894**	**1128**
Ending Stocks/Use	**.55**	**.23**	**.19**	**.20**	**.195**	**.086**

WHAT AFFECTS BASIS CHANGES

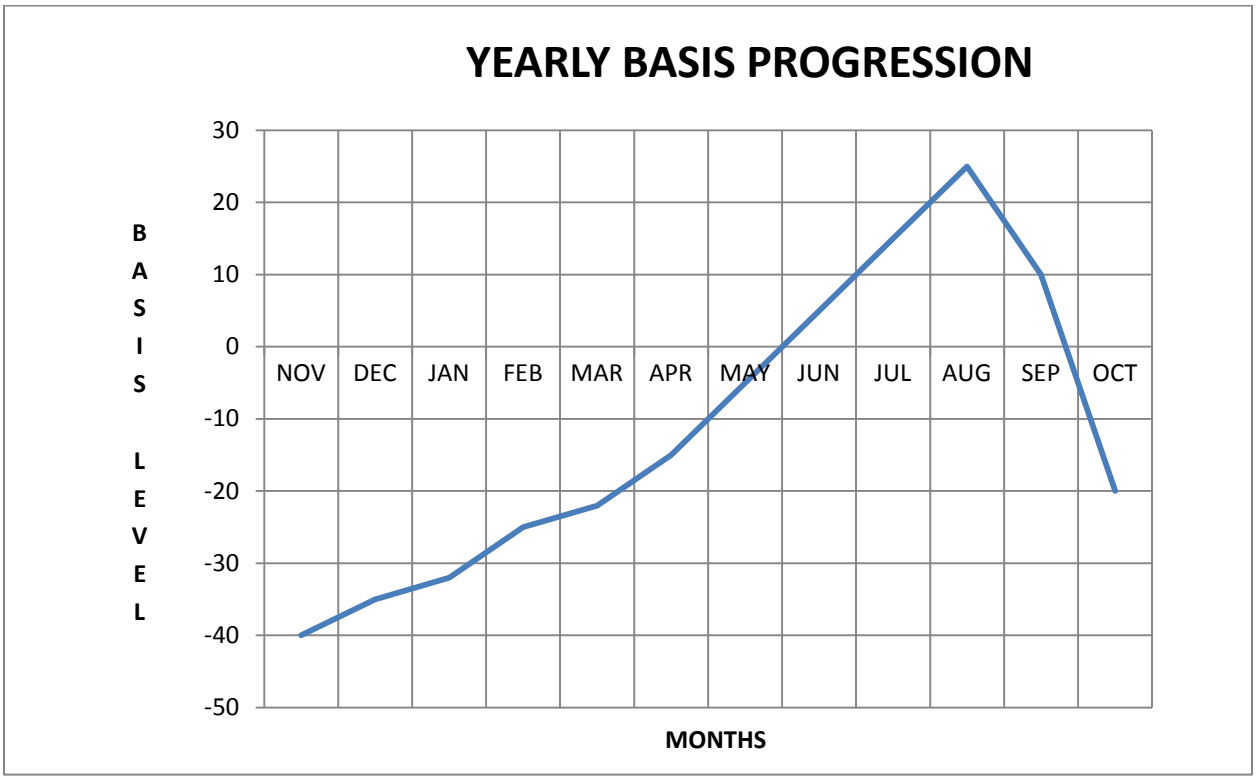
Seasonality – typically the basis is the weakest in the fall, and strengthens into summer. Peak is usually in the July/August time period, right before the new crop.

Futures Spreads – if spreads are wide, then the basis is actually a little stronger (less incentive for cash grain to come to market because it pays to hold it), if spreads are inverted, then basis generally is weaker (more incentive for cash grain to come to market because it does NOT pay to hold it).

Return on Storage - cash values for grain in forward months, interest rates, government programs, economic conditions – Is the market in your area creating an incentive for you to hold your corn off the market in return for more value later?

Transportation – disruptions in normal truck or rail deliveries (weather), changes in freight rates (gas prices, tax increase?, load limits), availability of transportation (lack of adequate number of trucks or rail cars to move grain), competing commodities.

Velocity – I think probably the best indicator of whether the basis is going to get stronger or weaker is the velocity of the movement of the grain into the market. This takes a lot of the above mentioned indicators into consideration, and to me is the underlying concept to think about when you are determining a strategy to maximize your basis opportunity.


YEARLY BASIS PROGRESSION
BASIS LEVEL
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MONTHS

Futures Spreads

Corn Futures Prices Sun, Jan 25th, 2015

Current Prices

Contract	Last	Spread	To Sept
ZCH15 (Mar '15)	386-2		24 ¼
ZCK15 (May '15)	394-6	8 1/2	15 ¾
ZCN15 (Jul '15)	402-0	7 ¼	7 ¼
ZCU15 (Sep '15)	410-4	8 ½	
ZCZ15 (Dec '15)	416-2	5 ¾	

Cash Carries

Basis Value

Current	February	March	April	May	June	July	Aug	September
-5H	-2H	-5K	-2K	-7N	-2N	-7U	-2U	-5Z

Flat Price

3.81 ¼	3.84 ½	3.89 ¾	3.92 ¾	3.95	4.00	4.03 ½	4.08 ½	4.11 ¼

Net Carry

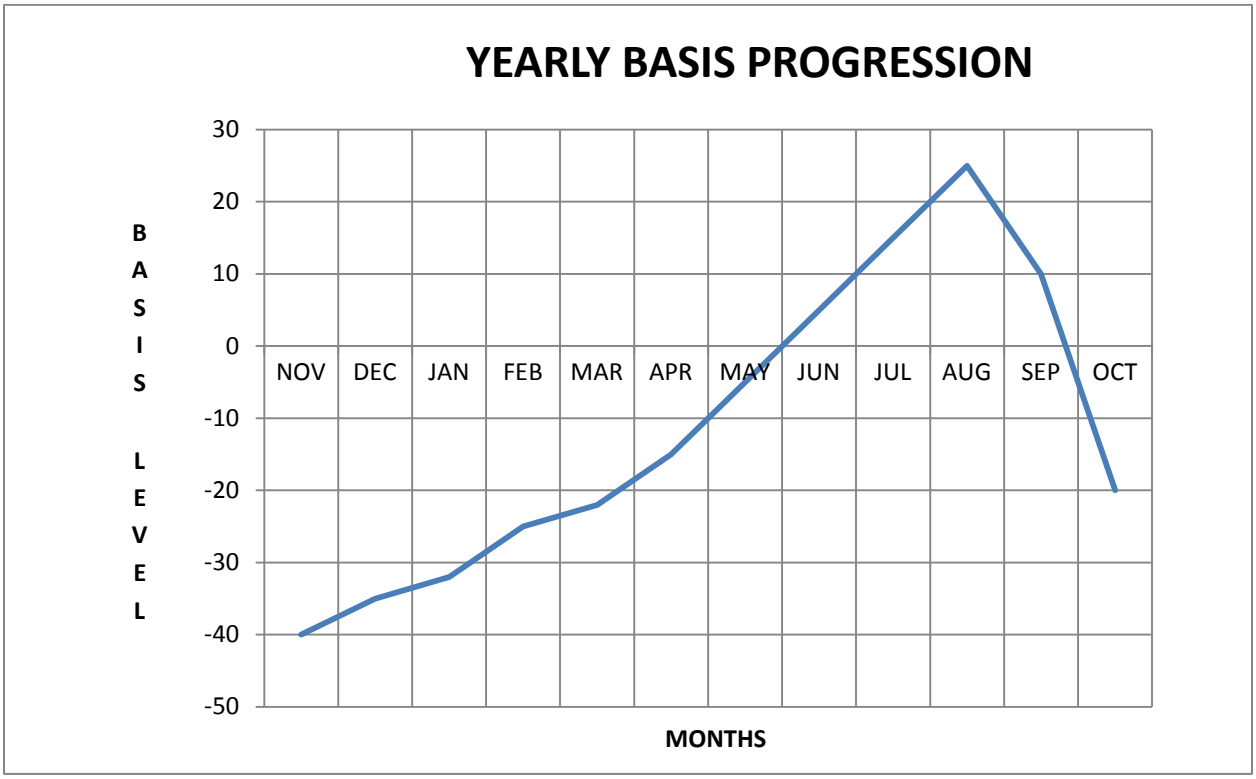
Monthly	.03	.04 ¼	.03	.02 ¼	.05	.03 ½	.05	.02 ¾
Total	.03	.07 ¼	.10 ¼	.12 ½	.17 ½	.21	.26	.28 ¾

CARRY

October 1	**Purchase**		**Sale**
	5,000 bushels @ $4.00	**-1.00**	**5,000 bushels – July futures @ $5.00**
June 25	**Sale**		**Purchase**
	5,000 bushels @ $5.35	**-.60**	**5,000 bushels – July futures @ $5.95**
Net Change	**+1.35**	**+.40**	**-.95**

INVERSE

May 1	**Purchase**		**Sale**
	5,000 bushels @ $4.40	**+.20**	**5,000 bushels – Sept futures @ $4.20**
August 20	**Sale**		**Purchase**
	5,000 bushels @ 3.90	**-.10**	**5,000 bushels – Sept futures @ $4.00**
Net Change	**-.50**	**-.30**	**+.20**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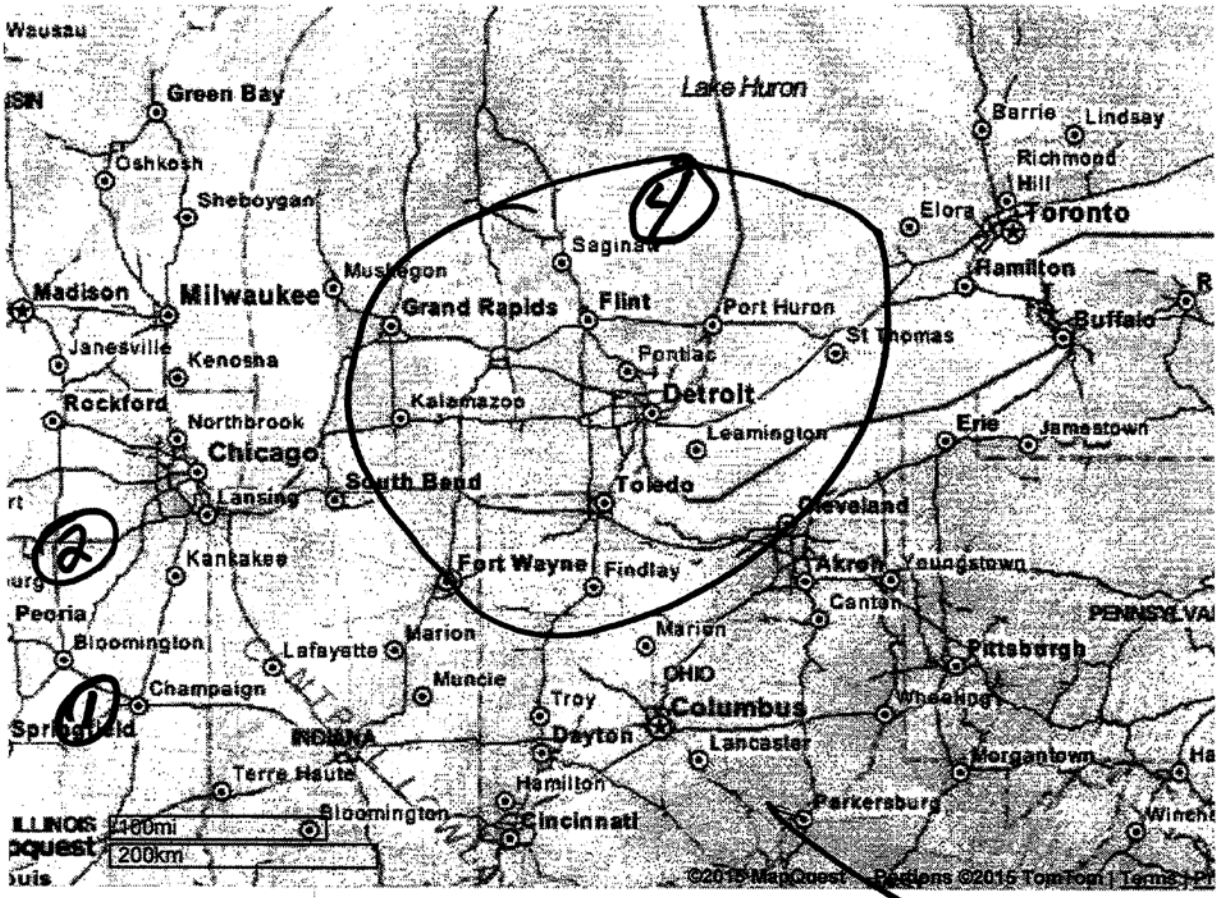
CORN – Supply and Demand – U.S.

			Million Acres	
Area Planted	97.3	95.4	90.9	90.6
Area Harvested	87.4	87.5	83.1	83.1
			Bushels	
Yield per Harvested Acre	123.1	158.1	173.4	171
			Million Bushels	
Beginning Stocks	989	821	1236	1232
Production	10755	13829	14407	14216
Imports	160	36	25	25
Supply, Total	11904	14686	15668	15472
Feed and Residual	4315	5036	5375	5275
Food, Seed & Industrial 2/	6038	6501	6545	6570
Ethanol & by-products 3/	4641	5134	5150	5175
Domestic, Total	10353	11537	11920	11845
Exports	730	1917	1750	1750
Use, Total	11083	13454	13670	13595
Ending Stocks	821	1232	1998	1877
CCC Inventory	0	0	0	0
Free Stocks	821	1232	1998	1877
Outstanding Loans	32	76	230	230
Avg. Farm Price ($/bu) 4/	6.89	4.46	3.20 - 3.80	3.35 - 3.95
Crop Years	2012-13	2013-14	2014-15	2014-15
			December	January

World Supply and Demand - Corn

2014/15 Proj.		Beginning Stocks	Production	Imports	Domestic Feed	Domestic Total 2/	Exports	Ending Stocks
World 3/	Dec	172.84	991.58	109.8	597.12	972.21	112.3	192.2
	Jan	172.23	988.08	110.1	594.23	971.16	112.3	189.15
United States	Dec	31.39	365.97	0.64	136.53	302.78	44.45	50.75
	Jan	31.29	361.09	0.64	133.99	300.88	44.45	47.69
Total Foreign	Dec	141.45	625.62	109.16	460.59	669.43	67.89	141.45
	Jan	140.93	626.99	109.46	460.24	670.28	67.89	141.46
Major Exporters 4/	Dec	23.21	110.5	0.84	59.2	77.5	33.7	23.34
	Jan	22.71	110.5	0.84	59.2	77.5	33.7	22.84
Argentina	Dec	2.12	22	0.01	6.1	9.2	12	2.93
	Jan	1.62	22	0.01	6.1	9.2	12	2.43
Brazil	Dec	17.75	75	0.8	47.5	56.5	19.5	17.55
	Jan	17.75	75	0.8	47.5	56.5	19.5	17.55
South Africa	Dec	3.34	13.5	0.03	5.6	11.8	2.2	2.86
	Jan	3.34	13.5	0.03	5.6	11.8	2.2	2.86
Major Importers 5/	Dec	18.38	130.24	62.8	137	190.08	3.65	17.7
	Jan	18.1	130.61	63.8	137.5	190.58	3.65	18.29
Egypt	Dec	2.16	5.75	7.5	11.5	13.8	0.01	1.6
	Jan	2.16	5.75	7.5	11.5	13.8	0.01	1.6
European Union 6/	Dec	6.71	73.59	6	58	77	2.5	6.8
	Jan	6.42	73.96	7	58.5	77.5	2.5	7.38
Japan	Dec	0.55	0	15.4	10.9	15.4	0	0.55
	Jan	0.55	0	15.4	10.9	15.4	0	0.55
Mexico	Dec	2.77	23	10.9	16.5	33.25	0.5	2.92
	Jan	2.77	23	10.9	16.5	33.25	0.5	2.92
Southeast Asia 7/	Dec	3.8	27.68	9.2	27.9	36.1	0.64	3.95
	Jan	3.8	27.68	9.2	27.9	36.1	0.64	3.95
South Korea	Dec	1.85	0.08	9.6	8	10.1	0	1.42
	Jan	1.85	0.08	9.6	8	10.1	0	1.42
Canada	Dec	1.59	11.5	0.7	6.6	12	0.5	1.29
	Jan	1.59	11.5	1	7	12.4	0.5	1.19
China	Dec	77.32	215.5	2	158	216	0.1	78.72
	Jan	77.32	215.5	2	158	216	0.1	78.72
FSU-12	Dec	3.24	42.66	0.42	20.29	23.16	19.84	3.32
	Jan	3.24	42.66	0.42	20.29	23.16	19.84	3.32
Ukraine	Dec	2.24	27	0.05	9	10.4	16.5	2.39



(5) NOCA Export

Within these markets and in reading the news, I am looking for trend changes that would affect some of these items:

World production – this year and next year – the market is looking a couple of years ahead most of the time.

Regional production – competition between crops, acre changes

Local production – any local weather or yield issues that differentiates your local area from regional or national production patterns

Quality – any disease, toxin, test weight, damage or other issues that will make your grain more or less marketable than other areas

World demand – is there a larger demand for exports this year or next year anticipated

Regional demand – are there going to be other regional markets that come into our area looking for supply

Local demand – how is demand in our area looking Is there enough supply for local users and is there a need that I can fill – communicate with your local user to see if there is a need you can help with

Velocity changes – pattern recognition. Situate yourself to market when you are outside of the usual times of higher velocity.